

REMARKS/ARGUMENTS

Claims 1-2, 4-5, 9, 15-16, 18, 20-34, 37, and 39-50 were previously pending. As noted above, claims 18, 28, 34, and 49 have been amended, and claims 32-33 have been canceled. Support for these amendments may be found throughout the Specification.¹ Thus, claims 1-2, 4-5, 9, 15-16, 18, 20-31, 34, 37, and 39-50 are now pending.

Applicants respectfully request reconsideration of this application based on the following remarks.

Allowed Claims

The Applicants respectfully thank the Examiner for the allowance of claims 1, 2, 4, 5, 9, 15, 16, 18, 20-27, 33, 37, 39-42, 44, 46-48, and 50.

Claim Objections

Claim 18 is objected to as improperly depending from canceled claim 17. Claim 18 has been amended to depend from allowable claim 15. Therefore, the Applicants submit that claim 18 is likewise allowable at least for its dependence upon an allowable claim.

Claim Rejections – 35 USC § 103

I. Claims 28-32, 43, and 49

Claims 28-32, 43, 45, and 49 are rejected under 35 USC § 103(a) as being unpatentable over Sen et al. (US Patent No. 6,765,909, hereinafter “Sen”) in view of Le (U.S. Pub. No. 2003/0130000, hereinafter “Le”). It is noted that claims 28 and 49 have been amended, and claims 32-33 have been canceled. It is also noted that claim 45 depends from claim 34, which is discussed below. To the extent that the rejections remain applicable to the claims currently pending, the Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, all of the claimed features must be taught or suggested by the references and there must be some suggestion or motivation, in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.²

¹ See, e.g., Specification, at paragraph 46.

² MPEP, section 2142.

Claim 28 is directed to a method for efficiently filtering at least one packet incoming to a wireless mobile station, comprising:

- wirelessly receiving Internet Protocol (IP) data packets and Van Jacobson (VJ) compressed and uncompressed data packets at the mobile station;
- identifying the IP data packets from the VJ uncompressed data packets at the mobile station;
- identifying a connection identification as destined for the mobile station in a one of the VJ uncompressed packets upon said identifying of the one of the VJ uncompressed packets;
- forwarding the connection identification to a connection identification list at the mobile station for use by a delineator, at the mobile station, in subsequently assessing a destination of VJ compressed packets, received at the mobile station, associated with the one of the VJ uncompressed packets;
- identifying at the delineator whether a VJ compressed data packet is destined for the mobile station or for the tethered terminal equipment; and
- forwarding the VJ compressed data packet from the mobile station to the tethered terminal equipment without decompression.

In the method of claim 28, a delineator at the mobile station determines whether a VJ compressed data packet is destined for the mobile station or for the tethered terminal equipment and the VJ compressed data packet is forwarded from the mobile station to the tethered terminal equipment without decompression.

Thus, the delineator, which is located at the mobile station, enables the avoidance of the step of uncompressing the headers of VJ compressed TCP/IP packets incoming to the mobile station that are destined for a tethered terminal equipment, as discussed in paragraph 46 of the written description. This saves time and battery power for a mobile station.

In contrast, Sen discloses a classifier 406 that is “stored and operative within the QAS” that is located in a Base Station. See column 5, lines 66-67 and Fig. 4 of Sen. The QAS determines the type of service the signal should be supplied, and buffers and classifies data traffic and directs the classified traffic to a LAC/MAC of the same class.

Thus, the classifier element in Sen is located at a Base Station and is not a delineator at a mobile station, as in claim 28, and therefore, will not save the time and battery power required for a mobile device to uncompress headers of VJ compressed TCP/IP packets incoming to the mobile station that are destined for a tethered terminal equipment rather than the mobile station.

Le is cited as disclosing general processing of packets at a mobile station. However,

neither Sen nor Le disclose or suggest forwarding a VJ compressed data packet from the mobile station to the tethered terminal equipment without decompression based on an identification by the delineator at the mobile station that the data packet is destined for the tethered mobile device.

For at least this combination of reasons, the Applicants submit that Sen and Le, whether taken alone or in combination fail to disclose or suggest every feature of claim 28. Therefore, the Applicants submit that claim 28 is allowable over the cited art, and request a withdrawal of the rejection of claim 28.

Claim 49 is similarly directed to a software module embodied in a computer readable storage medium, the storage medium encoded with code capable of being executed by a computer for efficiently filtering at least one packet incoming to a wireless mobile station having a tethered terminal equipment, comprising:

a first module operable to cause the mobile station to wirelessly receive IP data packets and Van Jacobson (VJ) compressed and uncompressed data packets;

a second module operable to cause the mobile station to identify the IP data packets from the VJ uncompressed data packets;

a third module operable to cause the mobile station to identify a connection identification as destined for the mobile station in a one of the VJ uncompressed packets upon said identifying of the one of the VJ uncompressed packets;

a fourth module operable to cause the mobile station to forward the connection identification to a connection identification list for use by the delineator in subsequently assessing a destination of VJ compressed packets associated with the one of the VJ uncompressed packets without decompressing the packets;

a fifth module operable to cause the mobile station to identify at the delineator whether a VJ compressed data packet is destined for the mobile station or for the tethered terminal equipment; and

a sixth module operable to cause the mobile station to forward the VJ compressed data packet from the mobile station to the tethered terminal equipment without decompression when the delineator identifies the packet as being destined for the terminal equipment

Therefore, for reasons similar to those discussed above for claim 28, the Applicants submit that claim 49 is likewise allowable.

As claim 28 is allowable, the Applicants submit that claims 29-31, and 43, which depend from allowable claim 28, are therefore also allowable for at least the above noted reasons and for

the additional subject matter recited therein.

For example, Sen also fails to disclose or suggest an apparatus, wherein an IP address of the mobile station comprises a destination address for both the mobile station and the terminal equipment, as in claim 43.

Therefore, based on the foregoing, Applicants respectfully request that the Examiner withdraw the rejection of claims 28-31, 43, and 49 under 35 USC § 103(a) as being obvious over Sen in view of Le.

II. Claim 34

Claim 34 is rejected under 35 USC § 103(a) as being unpatentable over Sen in view of Le and further in view of Parantainen (U.S. Patent No. 7,054,268, hereinafter “Parantainen”). It is noted that claim 34 has been amended. To the extent that the rejection remains applicable to the claim currently pending, the Applicants hereby traverse the rejection as follows.

Claim 34 is directed to a snooper housed on a wireless mobile station for efficiently processing at least one Internet Protocol (IP) packet incoming to the mobile station from a Packet Data Service Node (PDSN), comprising:

a storage element at the mobile station for storing a list of Van Jacobson (VJ) connection identifications (CID), each VJ CID associated with an active application running on the mobile station or associated with a terminal equipment tethered to the mobile station such that the mobile station is operable to provide the terminal equipment with access to a wireless network; and

a processing element configured to differentiate between a packet with a VJ CID and a packet without a VJ CID, and if the packet has a VJ CID, to compare the VJ CID against the list of VJ CIDs in the list, and to forward the packet based on the comparison, wherein the processing element decompresses a compressed VJ header and forwards the packet with the decompressed VJ header to the active application running on the mobile station if the VJ CID of the packet matches the VJ CID associated with the active application running on the mobile station, and forwards the packet to the terminal equipment without decompression of the VJ header if the VJ CID of the packet matches the VJ CID associated with the terminal equipment.

In claim 34, the snooper is housed on a wireless mobile station and increases the mobile stations ability to efficiently process IP data packets by differentiating between a packet with a VJ CID and those without a VJ CID and further forwarding the packet with the decompressed VJ

header to the active application running on the mobile station if the VJ CID of the packet matches the VJ CID associated with the active application running on the mobile station, and forwards the packet to the terminal equipment “without decompression” of the VJ header if the VJ CID of the packet matches the VJ CID associated with the terminal equipment.

As discussed above, neither Sen nor Le discloses a component housed on a wireless mobile station that forwards a received packet having a VJ compressed header to a tethered terminal equipment without decompression of the VJ header if the VJ CID of the packet matches the VJ CID associated with the terminal equipment.

Parantainen is cited as disclosing a snooper, however, the snooper in Parantainen observes data “generated at a mobile station” in order to determine if the data is a specific data type, and if so to set up a temporary block flow (TBF). However, Parantainen does not disclose or suggest a processing element configured to differentiate between a packet with a VJ CID and a packet without a VJ CID, and if the packet has a VJ CID, to compare the VJ CID against the list of VJ CIDs in the list, and to forward the packet based on the comparison, wherein the processing element decompresses a compressed VJ header and forwards the packet with the decompressed VJ header to the active application running on the mobile station if the VJ CID of the packet matches the VJ CID associated with the active application running on the mobile station, and forwards the packet with the compressed VJ header to the terminal equipment if the VJ CID of the packet matches the VJ CID associated with the terminal equipment, as in claim 34.

Therefore, Parantainen fails to cure the deficiency in Sen and Le, and none of Sen, Le, or Parantainen, whether taken alone or in combination, disclose or suggest every element of claim 34. Therefore, for at least the reasons noted above, the Applicants submit that claim 34 is allowable over the cited art.

As claim 34 is allowable, the Applicants submit that claim 45, which depends from allowable claim 34, is therefore also allowable for at least the above noted reasons and for the additional subject matter recited therein.

For example, Sen also fails to disclose or suggest an apparatus, wherein an IP address of the mobile station comprises a destination address for both the mobile station and the terminal equipment, as in claim 45.

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Therefore, based on the foregoing, the Applicants respectfully request that the Examiner withdraw the rejection of claims 34 and 45 under 35 USC § 103(a) as being obvious over Sen in view of Le in view of Parantainen.

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CONCLUSION

In light of these remarks, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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